

U.S. Application No. 10/743,321
Response and Amendment, dated November 15, 2007
In response to Office Action dated August 15, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A secure electronic registration and voting system providing access to voting related subsystems and processes through a network, the secure electronic registration and voting system comprising:
a central hosting facility connected to the network, the central hosting facility including comprising:
a home page as an access point,
an application processing segment for providing election processing, the application processing segment comprising a ballot reconciliation and tabulation process element, the ballot reconciliation and tabulation process element comprising:
dual login and ballot decryption services, and
a storage segment for temporary and persistent storage of data; and
a computing device connected to the network for accessing the central hosting facility.
2. (Original) The secure electronic registration and voting system of claim 1, wherein the computing device further comprises a local election office application processing segment for providing election processing at a local election office.
3. (Currently Amended) The secure electronic registration and voting system of claim 1, wherein the central hosting facility further comprises:
a first firewall between the network and the home page for protecting the central hosting facility from unauthorized access from the network; and
a second firewall between the home page and the application processing segment providing additional protection from unauthorized access to the central hosting facility.

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4. (Original) The secure electronic registration and voting system of claim 1, wherein the home page further comprises a home page and common services element.

5. (Original) The secure electronic registration and voting system of claim 4, wherein the home page and common services element further comprises:

- presentation services;
- logging and auditing services;
- application integration services;
- common services;
- access control and authorization services; and
- data access services.

6. (Original) The secure electronic registration and voting system of claim 1, wherein the application processing segment further comprises an identification and authentication process element.

7. (Original) The secure electronic registration and voting system of claim 6, wherein the identification and authentication process element further comprises:

- on-line absentee voter application services;
- identity proofing services;
- registration services;
- registered user login services; and
- roaming digital certificate and managed public key infrastructure services.

8. (Original) The secure electronic registration and voting system of claim 1, wherein the application processing segment further comprises a voter registration process element.

9. (Original) The secure electronic registration and voting system of claim 8, wherein the voter registration process element further comprises:

- electronic voter registration services;

status checking services;
communications and transmittal of electronic absentee voter application services;
secure messaging services;
voter registration verification and update services; and
voter registration database creation and maintenance services.

10. (Original) The secure electronic registration and voting system of claim 1, wherein the application processing segment further comprises a ballot definition process element.

11. (Original) The secure electronic registration and voting system of claim 10, wherein the ballot definition process element further comprises:

balloting system interface services;
ballot conversion services;
ballot definition services; and
ballot database creation and maintenance services.

12. (Original) The secure electronic registration and voting system of claim 1, wherein the application processing segment further comprises a voting engine process element.

13. (Original) The secure electronic registration and voting system of claim 12, wherein the voting engine process element further comprises:

ballot generation services;
ballot presentation services;
vote casting and symmetric encryption services;
vote review, change, and confirmation services;
cast ballot database creation and maintenance services; and
vote auditing services.

14. (Cancelled)

15. (Currently Amended) The secure electronic registration and voting system of claim 14 1, wherein the ballot reconciliation and tabulation process element further comprises:

controlled login for local election office services;
ballot reconciliation services;
voter identification and ballot separation services;
cast ballot local election office database creation and maintenance services;
download encrypted ballot to local election office services;
~~dual login and ballot decryption services;~~
cast ballot tabulation services;
cast ballot conversion services; and
auditing services.

16. (Original) The secure electronic registration and voting system of claim 1, wherein the data storage segment further comprises physically separated storage space for each local election office using the secure electronic registration and voting system.

17. (Original) The secure electronic registration and voting system of claim 1, wherein the data storage segment further comprises logically separated storage space for each local election office using the secure electronic registration and voting system.

18. (Original) A secure electronic registration and voting system providing access to voting related subsystems and processes through a network, the secure electronic registration and voting system comprising:

a central hosting facility, including

a system web server for housing a home page and web pages,
a data storage device for storing local election office data, and
an application processing segment providing the voting related subsystems and processes, the application processing segment further including

an identification and authentication subsystem and associated services for identity proofing and assigning a roaming digital certificate to users and local election officials

by the user or local election official submitting an approved credential or retrieving, completing, and submitting an identity proofing form,

a voter registration subsystem and associated processes for registering a user to vote by completing an electronic application, digitally signing the application with the assigned roaming digital certificate, and having the application submitted electronically, wherein a local election official may review the application, approve or deny the application, update the status of the application, and communicate the status of the application to the user,

a ballot creation subsystem and associated processes for creating a ballot definition file by an official of the local election office, transforming the ballot definition file to a standard format, validating the ballot by the local election official, and providing the ballot for use by the user,

a voting subsystem and associated processes for providing secure voting by identifying and authenticating a user that logs in to vote and request a ballot, retrieving the user's identification information and digital certificate, generating a ballot from the user's local election office ballot definition file, digitally signing the ballot, sending the ballot to the user, receiving from the user the completed ballot digitally signed with the user's roaming digital certificate, time stamping the ballot, encrypting the ballot with a user's symmetric key, and storing the encrypted ballot, transmitting a ballot summary to the user for confirmation, receiving confirmation, time stamping the ballot and encrypting the user's symmetric key with a local election office's public key, and storing the encrypted symmetric key and associated encrypted ballot in the local election office's electronic ballot box,

a ballot tabulation and reconciliation subsystem and associated processes for reconciling encrypted ballots, wherein ballot tabulation includes providing a local election office with a token and a tabulation computer and requiring one election official to login to the tabulation computer and a second election official to login to the central hosting facility, separating voter identification information from the encrypted ballots and transferring the encrypted ballots to the tabulation computer, decrypting the ballots by decrypting the symmetric key associated with each ballot with the local election office's public key and decrypting each ballot with its associated symmetric key, and tabulating the decrypted ballots, and

a common services subsystem and associated processes; and

a computer for accessing the central hosting facility through the network.

19. (Withdrawn)

20. (Withdrawn)

21. (Withdrawn)

22. (Withdrawn)

23. (Withdrawn)

24. (Currently Amended) ~~A method for~~ The method of claim 42, wherein the step of registering a the user to vote with the user's local election office ~~through a secure electronic registration and voting system, comprising~~ further comprises the steps of:

logging into the secure electronic registration and voting system by the user;

authenticating the user as a valid user;

completing an electronic application by the user;

signing the completed electronic application with the roaming digital signature assigned to the user;

submitting the digitally signed electronic application;

storing the electronic application in a database on the secure electronic registration and voting system assigned to the user's local election office; and

notifying the user's local election office of the receipt of the user's completed electronic application.

25. (Original) The method of claim 24, further comprising the step of checking the status of the electronic application.

26. (Original) The method of claim 24, further comprising the step of sending a

communication by the user's local election office.

27. (Original) The method of claim 26, further comprising the step of reviewing a communication from the user's local election office.

28. (Original) The method of claim 24, further comprising the step of reviewing the electronic application.

29. (Currently Amended) The method of claim 24 28, wherein the step of reviewing the electronic application further comprises the steps of:

logging in to the secure electronic registration and voting system by an official of the local election office;

authenticating the official as an approved official from the local election office;

reviewing the user's electronic application by the local election office official;

approving the electronic application by the local election office official;

updating status information for the user in the database on the secure electronic registration and voting system assigned to the user's local election office; and

updating status information for the user in a local database.

30. (Currently Amended) The method of claim 24 28, wherein the step of reviewing the electronic application further comprises the steps of:

logging in to the secure electronic registration and voting system by an official of the local election office;

authenticating the official as an approved official from the local election office;

reviewing the user's electronic application by the local election office official;

rejecting the electronic absentee voter application by the local election office official;

updating status information for the user in the database on the secure electronic registration and voting system assigned to the user's local election office; and

updating status information for the user in a local database.

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31. (Withdrawn)
32. (Withdrawn)
33. (Withdrawn)
34. (Withdrawn)
35. (Withdrawn)
36. (Withdrawn)
37. (Withdrawn)
38. (Withdrawn)
39. (Withdrawn)
40. (Withdrawn)
41. (Withdrawn)
42. (New) A method for secure electronic registration and voting, comprising the steps of:
identifying and authenticating a user, wherein the step of identifying and authenticating
the user includes assigning the user a roaming digital signature;
registering the user to vote with the user's local election office;
creating an electronic ballot;
allowing the user to vote using the electronic ballot; and

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tabulating and reconciling the electronic ballots, wherein the step of tabulating and reconciling the electronic ballots includes providing a local election office with a token and a tabulation computer and requiring one local election official to install the token and login to the tabulation computer and a second election official to login to a central hosting facility to access the electronic ballots.